

CLAIMS

1. A silicone rubber sponge emulsion composition, which comprises (A) a liquid silicone rubber base comprising (a-1) a liquid
5 diorganopolysiloxane having at least two alkenyl groups per molecule or (a-1) a liquid diorganopolysiloxane having at least two alkenyl groups per molecule and (a-4) a reinforcing filler, (a-2) an organopolysiloxane having at least two silicon-bonded hydrogen atoms per molecule, and (a-3) a platinum catalyst, (B¹) an aqueous solution of (b-1) a water-soluble
10 polymer, and (C) an emulsifying agent, and in which (a-1) to (a-3) or (a-1) to (a-4) in component (A) form an addition-curable type liquid silicone rubber composition, component (B¹) is contained in a proportion ranging from 50 to 250 parts by weight and component (C) is contained in a proportion ranging from 0.1 to 10 parts by weight per 100 parts by weight of the total
15 of (a-1) to (a-3) or the total of (a-1) to (a-4) in component (A).

2. A method for producing the silicone rubber sponge emulsion composition according to claim 1, wherein an addition-curable type liquid silicone rubber composition is prepared by mixing (A) a liquid silicone
20 rubber base made up of (a-1) a liquid diorganopolysiloxane having at least two alkenyl groups per molecule, or (a-1) a liquid diorganopolysiloxane having at least two alkenyl groups per molecule and (a-4) a reinforcing filler, (a-2) an organopolysiloxane having at least two silicon-bonded hydrogen atoms per molecule, and (a-3) a platinum catalyst and an
25 emulsion is made by mixing the addition-curable type liquid silicone rubber composition with (B¹) an aqueous solution of (b-1) a water-soluble polymer, and (C) an emulsifying agent.

3. A method for producing the silicone rubber sponge emulsion
30 composition according to claim 1, wherein an emulsion is produced by

mixing (A) a liquid silicone rubber base comprising (a-1) a liquid diorganopolysiloxane having at least two alkenyl groups per molecule or (a-1) a liquid diorganopolysiloxane having at least two alkenyl groups per molecule and (a-4) a reinforcing filler, (B¹) an aqueous solution of (b-1) a water-soluble polymer, and (C) an emulsifying agent, and the emulsion is mixed with (a-2) an organopolysiloxane having at least two silicon-bonded hydrogen atoms per molecule and (a-3) a platinum catalyst.

4. A silicone rubber sponge emulsion composition, which comprises (A) a liquid silicone rubber base comprising (a-1) a liquid diorganopolysiloxane having at least two alkenyl groups per molecule or (a-1) a liquid diorganopolysiloxane having at least two alkenyl groups per molecule and (a-4) a reinforcing filler, (a-2) an organopolysiloxane having at least two silicon-bonded hydrogen atoms per molecule, (a-3) a platinum catalyst, (B²) an aqueous solution of (b-1) a water-soluble polymer and (C) an emulsifying agent, and in which (a-1) to (a-3) or (a-1) to (a-4) in component (A) form an addition-curable type liquid silicone rubber composition, component (b-1) and water are contained in a proportion ranging from 10 to 250 parts by weight and component (C) is contained in a proportion ranging from 0.1 to 10 parts by weight per 100 parts by weight of the total of (a-1) to (a-3) or the total of (a-1) to (a-4) in component (A).

5. The silicone rubber sponge emulsion composition according to claim 1 or claim 4, wherein component (b-1) is sodium salt of an acrylic acid polymer and component (C) is a nonionic surface active agent.

6. The silicone rubber sponge emulsion composition according to claim 5, wherein the sodium salt of an acrylic acid polymer is sodium salt of polyacrylic acid.

7. The silicone rubber sponge emulsion composition according to claim 1 or claim 4, wherein component (b-1) is contained in component (B¹) or component (B²) in an amount of 0.1 to 5 % by weight.

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8. The method for producing a silicone rubber sponge emulsion composition according to claim 2 or claim 3, wherein component (b-1) is sodium salt of an acrylic acid polymer and component (C) is a nonionic surface active agent.

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9. The method for producing a silicone rubber sponge emulsion composition according to claim 8, wherein the sodium salt of an acrylic acid polymer is the sodium salt of polyacrylic acid.

10. The method for producing a silicone rubber sponge emulsion composition according to claim 2 or claim 3, wherein component (b-1) is contained in component (B¹) or component (B²) in an amount of 0.1 to 5 % by weight.

11. A method for producing silicone rubber sponge, wherein silicone rubber sponge is obtained by forming a moist silicone rubber-like molding by curing the silicone rubber sponge emulsion composition according to claim 1 or claim 4 and then evaporating water from the molding by heating.

12. The method for producing a silicone rubber sponge according to claim 11, wherein the silicone rubber sponge emulsion composition is cured at a temperature between room temperature and less than 120°C and the cured product is heated at 120°C to 250°C.

13. The method for producing a silicone rubber sponge according to

claim 11 or claim 12, wherein the silicone rubber sponge emulsion composition does not contain air bubbles.